

IN THE CLAIMS:

Please cancel claims 28-31, 37, and 42-43 without prejudice, and amend the claims as follows:

1. (Previously Presented) A method of processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon on the substrate; and then exposing the substrate to electromagnetic radiation having a wavelength between about 600 nm and about 1000 nm under conditions sufficient to heat the layer to a temperature of at least about 300°C.

2. (Original) The method of claim 1, wherein the exposing the substrate to electromagnetic radiation comprises laser annealing the substrate.

3. (Original) The method of claim 2, wherein the laser annealing comprises focusing continuous wave electromagnetic radiation into a line extending across a surface of the substrate.

4. (Original) The method of claim 1, wherein the electromagnetic radiation is provided by a lamp.

5. (Original) The method of claim 1, wherein the layer comprising amorphous carbon is deposited by plasma enhanced chemical vapor deposition.

6. (Original) The method of claim 1, further comprising removing the layer from the substrate after the exposing the substrate to electromagnetic radiation.

7. (Original) The method of claim 1, further comprising implanting dopant ions into the substrate before the depositing a layer comprising amorphous carbon.

8. (Original) The method of claim 7, wherein the substrate is exposed to the electromagnetic radiation for a period of time sufficient to activate the implanted dopant ions.

9. (Previously Presented) A method of processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon and a dopant selected from the group consisting of nitrogen, boron, phosphorus, fluorine, and combinations thereof on the substrate; and then

exposing the substrate to electromagnetic radiation having a wavelength between about 600 nm and about 1000 nm under conditions sufficient to heat the layer to a temperature of at least about 300°C.

10. (Original) The method of claim 9, wherein the exposing the substrate to electromagnetic radiation comprises laser annealing the substrate.

11. (Original) The method of claim 10, wherein the laser annealing comprises focusing continuous wave electromagnetic radiation into a line extending across a surface of the substrate.

12. (Original) The method of claim 9, wherein the electromagnetic radiation is provided by a lamp.

13. (Original) The method of claim 9, wherein the dopant is nitrogen.

14. (Original) The method of claim 9, wherein the layer is deposited at a temperature between about 250°C and about 450°C.

15. (Original) The method of claim 9, wherein the layer is deposited by plasma enhanced chemical vapor deposition.

16. (Original) The method of claim 9, further comprising removing the layer from the substrate after the exposing the substrate to electromagnetic radiation.

17. (Original) The method of claim 9, further comprising implanting dopant ions into the substrate before the depositing a layer comprising amorphous carbon.

18. (Original) The method of claim 17, wherein the substrate is exposed to the electromagnetic radiation for a period of time sufficient to activate the implanted dopant ions.

19-31. (Canceled)

32. (Currently Amended) ~~[[The]]~~ A substrate of claim 28 comprising silicon, processed by a method comprising:

depositing a layer comprising amorphous carbon[[,]] wherein the layer further comprises and a dopant selected from the group consisting of nitrogen, boron, phosphorus, fluorine, and combinations thereof on the substrate; and then

exposing the substrate to electromagnetic radiation having a wavelength between about 600 nm and about 1000 nm under conditions sufficient to heat the layer to a temperature of at least about 300°C.

33. (Currently Amended) ~~[[The]]~~ A substrate of claim 28 comprising silicon, processed by a method comprising:

depositing a layer comprising amorphous carbon[[,]] wherein the layer further comprises and nitrogen on the substrate; and then

exposing the substrate to electromagnetic radiation having a wavelength between about 600 nm and about 1000 nm under conditions sufficient to heat the layer to a temperature of at least about 300°C.

34. (Canceled)

35. (Currently Amended) [[The]] A substrate of claim 28 comprising silicon, processed by a method comprising:

depositing a layer comprising amorphous carbon on the substrate; and then exposing the substrate to electromagnetic radiation having a wavelength between about 600 nm and about 1000 nm under conditions sufficient to heat the layer to a temperature of at least about 300°C, wherein the method further comprises implanting dopant ions into the substrate before the depositing a layer comprising amorphous carbon.

36. (Original) The substrate of claim 35, wherein the substrate is exposed to the electromagnetic radiation for a period of time sufficient to activate the implanted dopant ions.

37. (Canceled)

38. (Currently Amended) [[The]] A method of claim 37 processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon on the substrate; and then exposing the substrate to pulses of electromagnetic radiation under conditions sufficient to heat the layer to a temperature of at least about 300°C, wherein exposing the substrate to electromagnetic radiation heats a top surface layer of the substrate to a temperature between about 1100°C and about 1410°C.

39. (Currently Amended) [[The]] A method of claim 37 processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon[[,]] wherein the layer further comprises and a dopant selected from the group consisting of nitrogen, boron, phosphorus, fluorine, and combinations thereof on the substrate; and then exposing the substrate to pulses of electromagnetic radiation under conditions sufficient to heat the layer to a temperature of at least about 300°C.

40. (Currently Amended) [[The]] A method of claim 37 processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon on the substrate; and then exposing the substrate to pulses of electromagnetic radiation under conditions sufficient to heat the layer to a temperature of at least about 300°C[.]] further comprising; and then

removing the layer from the substrate after the exposing the substrate to the electromagnetic radiation.

41. (Currently Amended) [[The]] A method of claim 37 processing a substrate comprising silicon, further comprising:

implanting dopant ions into the substrate before the depositing a layer comprising amorphous carbon; and then

depositing a layer comprising amorphous carbon on the substrate; and then exposing the substrate to pulses of electromagnetic radiation under conditions sufficient to heat the layer to a temperature of at least about 300°C.

42-43. (Canceled)

44. (Previously Presented) [[The]] A method of claim 42 processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon on the substrate; and then exposing the substrate to electromagnetic radiation provided by a lamp under conditions sufficient to heat the layer to a temperature of at least about 300°C, wherein exposing the substrate to electromagnetic radiation heats a top surface layer of the substrate to a temperature between about 1100°C and about 1410°C.

45. (Previously Presented) [[The]] A method of claim 42 processing a substrate comprising silicon, comprising:

depositing a layer comprising amorphous carbon and~~[[,]] wherein the layer~~
~~further comprises~~ a dopant selected from the group consisting of nitrogen, boron,
phosphorus, fluorine, and combinations thereof on the substrate; and then
exposing the substrate to electromagnetic radiation provided by a lamp under
conditions sufficient to heat the layer to a temperature of at least about 300°C.

46. (Previously Presented) ~~[[The]]~~ A method of claim 42 processing a substrate
comprising silicon, further comprising:
depositing a layer comprising amorphous carbon on the substrate; and then
exposing the substrate to electromagnetic radiation provided by a lamp under
conditions sufficient to heat the layer to a temperature of at least about 300°C; and
removing the layer from the substrate after the exposing the substrate to the
electromagnetic radiation.